

### STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

#### **Division of Water Resources**

Knoxville Environmental Field Office 3711 Middlebrook Pike Knoxville, Tennessee 37921

April 6, 2017

Mr. Jerry Kerley, Water Resources Director City of Crossville 963 City Lake Road Crossville, TN 38572

RE: Holiday Lake Dam; Cumberland Co: I.D. No. 18-7022

Dear Mr. Kerley:

On April 4, 2017, a Safety Inspection was conducted by personnel of this Division on the above referenced dam. Enclosed is an inspection report that outlines the observed conditions at the dam.

Based on this inspection, the dam appears to comply with the Safe Dams Act, T.C.A. 69-11-101 et seq., and therefore merits a Certificate of Approval and Safety for operation.

If you have not already done so, please sign the application sent to you earlier and return it along with the inspection fee of \$500.00. Please contact me at (865) 594-5562 if you have any questions. Your cooperation with the Safe Dams Program is appreciated.

Sincerely,

Terrell Hendren, P.E. Environmental Consultant Division of Water Resources

Knoxville Environmental Field Office

Enclosures

cc: Nashville, Safe Dams Program



# STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION Division of Water Resources

Knoxville Environmental Field Office 3711 Middlebrook Pike Knoxville, Tennessee 37921

# SAFE DAMS SECTION DIVISION OF WATER RESOURCES INSPECTION REPORT DAM AND APPLIPTEMANT WORKS

			DA	M AND APPUR	TENANT WORKS			
Name	of S	Structure	Holi	day Lake Da	n	I	.D	18-7022
Owne	r	City of	Crossvill	е		County	Cum	berland
Н.Р.	c	1	Weather	Partly Clo	udy, Warm Da	ate Apri	1 4,	2017
Last	Insp	ection Da	ate April	19, 2016	Lake :	Level	N	PL
Emero	jency	Spillway	y Capacity	: Required	PMP	Existing		PMP
Perso	ons P	resent a	t Inspecti	on Terrel	l Hendren = T	DEC Safe	Dams	
				( <del></del>				
shoul	ld be otes,	sketched these sl	d. If add nould also KESIDE) SL	itional shee be noted as	areas, or addets are neededend made a par	d for fur t of this	ther rep	sketches ort,
45		edge.						
	Tree	s			Yes		<b>No</b> X	
	Brus	h and/or	Briers				X	
	Need	s Mowing					X	

Slope Protection Riprap/Gravel		
	es X	No
Areas needing additional riprap No		
Slumps, Slides, Cracks None noted		
Sketch of location attached?	Yes	No X
Animal Burrows None noted		
Drift and Debris None		
Blocking trash rack or riser inlet?	Yes	No X

#### 2. CREST (TOP OF DAM)

3.

Ruts from vehicle or foot traffic  Erosion None noted  Slumps, Slides, Cracks None noted  Sketch of location attached?  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees Yes No  X  Reush and/or briers  X  X  X  X  X  X  X  X  X  X  X  X  X	Vegetative Cover Asphalt roadway							
Trees	,	Vas	No					
Needs mowing X  Ruts from vehicle or foot traffic X  Erosion None noted  Slumps, Slides, Cracks None noted  Sketch of location attached? Yes No X  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees Yes No X  Brush and/or briers X  Needs mowing and/or clearing X	Trees	162						
Needs mowing X  Ruts from vehicle or foot traffic X  Erosion None noted  Slumps, Slides, Cracks None noted  Sketch of location attached? Yes No X  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees Yes No X  Brush and/or briers X  Needs mowing and/or clearing X	Brush and/or briers		X					
Ruts from vehicle or foot traffic X  Erosion None noted  Slumps, Slides, Cracks None noted  Sketch of location attached? Yes No X  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees Yes No X  Brush and/or briers X  Needs mowing and/or clearing X								
Slumps, Slides, Cracks None noted  Sketch of location attached?  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees  Brush and/or briers  X  X  X  X  X  X  X  X  X  X  X  X  X		-						
Slumps, Slides, Cracks None noted  Yes No Sketch of location attached?  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Yes No Trees Yes No X  Brush and/or briers X  Needs mowing and/or clearing X	Ruts from vehicle or foot traffic		X					
Slumps, Slides, Cracks None noted  Yes No Sketch of location attached?  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Yes No Trees Yes No Erush and/or briers X Needs mowing and/or clearing X	Erosion None noted							
Slumps, Slides, Cracks None noted  Yes No Sketch of location attached?  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Yes No Trees Yes No Erush and/or briers X Needs mowing and/or clearing X	-							
Sketch of location attached?  Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees Yes No X  Brush and/or briers X  Needs mowing and/or clearing X								
Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees X  Brush and/or briers X  Needs mowing and/or clearing X	Slumps, Slides, Cracks None noted							
Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees X  Brush and/or briers X  Needs mowing and/or clearing X								
Remarks None  STREAM SLOPE OF DAM  Vegetative Cover Grass  Trees X  Brush and/or briers X  Needs mowing and/or clearing X		Yes	No					
STREAM SLOPE OF DAM  Vegetative Cover Grass  Yes No Trees X  Brush and/or briers X  Needs mowing and/or clearing X	Sketch of location attached?		X					
Vegetative Cover Grass  Yes No Trees  Brush and/or briers  Needs mowing and/or clearing  X	Remarks None							
Vegetative Cover Grass  Yes No Trees  Brush and/or briers  Needs mowing and/or clearing  X								
Vegetative Cover Grass  Yes No Trees  Brush and/or briers  Needs mowing and/or clearing  X								
Trees  Brush and/or briers  Needs mowing and/or clearing  Yes  X  X	STREAM SLOPE OF DAM							
Trees X  Brush and/or briers X  Needs mowing and/or clearing X	Vegetative Cover Grass							
Trees X  Brush and/or briers X  Needs mowing and/or clearing X								
Trees X  Brush and/or briers X  Needs mowing and/or clearing X								
Brush and/or briers  X  Needs mowing and/or clearing  X	Штоод	Yes						
Needs mowing and/or clearing X								
<del></del>	Brush and/or briers		X					
<del></del>	Needs mowing and/or clearing		X					
Needs reseeding X	Needs reseeding	<del>)</del>	X					

	pillway wingwall	. As
previously, the flow appears to be com	ing through frac	cture
bedrock and does not appear to pose a	threat.	
Left Abutment (Looking Downstream)	Yes	
Right Abutment (Looking Downstream)	X	
Toe of Dam		
Sketch of location attached		
Soil particles or discolored water in the seepage	-	
ESTIMATED VOLUME OF SEEPAGE Negligib	le	
	V	
Sketch of location attached?	Yes	
baccon of foodston document.	_	
Animal Burrows None noted		
	Yes N/A	
Animal Burrows None noted	•	

## 4. PRINCIPAL SPILLWAY A. Inlet

5.

	1.	Type (concrete, metal, etc.) Concrete weir control section
	2.	Shape primarily rectangular
	3.	Condition Good
В.	Outle	et
	1.	Type (concrete, metal, etc.) Rock channel
	•	
	2.	Shape Rectangular
	3.	Condition Good
C.	Rema:	Is stilling basin rip-rapped?  Yes No  X  —————————————————————————————————
	4	
EMER		SPILLWAY
A.	Туре	(rock, earthen, etc.) Same as principal spillway
D	Condi	ition Good
В.	Cond.	
	-	

Trees or brush growing in channel?  C. Remarks None  DRAWDOWN FACILITIES 42" dia metal pipe  When is last known time operated? 2010  Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Yes No X  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST? X  If so, where? City of Crossville  DO PIEZOMETERS EXIST? Yes No X  If so, how many are present?	Tr	alet blocked by debris?	Yes	No X
DRAWDOWN FACILITIES 42" dia metal pipe  When is last known time operated? 2010  Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Xes No X  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST? Yes No X  If so, where? City of Crossville  Pes No X  DO PIEZOMETERS EXIST? Yes No X			:(	X
When is last known time operated? 2010  Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Yes No X  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST? X  If so, where? City of Crossville  Pes No X  DO PIEZOMETERS EXIST? Yes No X	C. Re	<b>emarks</b> None	11	
When is last known time operated? 2010  Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Yes No X  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST? X  If so, where? City of Crossville  Pes No X  DO PIEZOMETERS EXIST? Yes No X		4 1		
When is last known time operated? 2010  Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Yes No X  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST? X  If so, where? City of Crossville  Pes No X  DO PIEZOMETERS EXIST? Yes No X	-			
Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Yes No X  If Yes, explain why  Do PLANS AND SPECIFICATIONS EXIST? X  If so, where? City of Crossville  Yes No X  DO PIEZOMETERS EXIST? X	DRAWDOW	N FACILITIES 42" dia metal pipe		
Valved on upstream or downstream side? Downstream  Remarks None  DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed? Yes No X  If Yes, explain why  Do PLANS AND SPECIFICATIONS EXIST? X  If so, where? City of Crossville  Yes No X  DO PIEZOMETERS EXIST? X	-			
DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed?  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No  Yes No  X  If So, where? Sexist?  Yes No  X	When is	s last known time operated? 2010		
DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed?  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  Yes No X				
DOWNSTREAM HAZARD POTENTIAL 1 - HIGH  Is a change in hazard classification needed?  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  Yes No X	Valved	on upstream or downstream side? Downstream	am 	
Is a change in hazard classification needed?  If Yes, explain why  Do Plans and specifications exist?  If so, where? City of Crossville  Do Piezometers exist?  Yes No X	Remarks	None		
Is a change in hazard classification needed?  If Yes, explain why  Do PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No  Yes No  X  Do PIEZOMETERS EXIST?				
Is a change in hazard classification needed?  If Yes, explain why  DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  DO PIEZOMETERS EXIST?  Yes No X		1		
Is a change in hazard classification needed?  If Yes, explain why  Do PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No Do PIEZOMETERS EXIST?  Yes No	DOWNSTR	EAM HAZARD POTENTIAL 1 - HIGH		
DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  X	Is a ch	ange in hazard classification needed?	Yes	
DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  X				
DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  X	If Yes,	explain why		
DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  X				
DO PLANS AND SPECIFICATIONS EXIST?  If so, where? City of Crossville  Yes No DO PIEZOMETERS EXIST?  X				
If so, where? City of Crossville  Yes No X  X	DO DIAM	CO AND ODECTET CARTONS ENTORS		No
DO PIEZOMETERS EXIST?  Yes No  X				
DO PIEZOMETERS EXIST? X	If so,	where? City of Crossville		
	DO PIEZ	OMETERS EXISTS	Yes	
If so, how many are present?			-	
	If so,	now many are present?		

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RECOMMENDATIONS	Continue to clear the entire dam on a routing
basis.	
Dasis.	
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#### INSPECTION REPORT SUMMARY

DAM NAME	Holida	y Lake	Dam	I.D.	NUMBER	18-7022	
INSPECTIO	N DATE	April 4	, 2017				

The checklist below is marked to indicate the conclusions in the report.

#### GENERAL CONDITIONS

	Satisfactory	Marginal	Deficient
UPSTREAM SLOPE	72	(**************************************	
Vegetative Cover	X		
Mowed Adequately	X	.4	*
Erosion	X		
Slope Protection	X	G.	
Slumps, Slides, Burrows	X		
CREST OF DAM			
Vegetative Cover	- X		
Mowed Adequately	X		
Erosion	X		
Ruts, Cracks	X		
DOWNSTREAM SLOPE			
Vegetative Cover	X		
Mowed Adequately	X		
Erosion	X		
Seepage	X		
Slumps, Slides, Burrows	X		
SPILLWAYS AND DRAWDOWN FACILITIES			
Spillway Capacity	X		
Principal Spillway Condition	X		
Emergency Spillway Condition	X		
Drawdown Operable	X		